Philosophy 9 - Intro to Logic
Spring 2007 - Exam #2

Please complete the following proofs in the time allowed. You are welcome to use any of the derivation rules that you have learned, including conditional proof and indirect proof, on any proof. You have one hour to complete this exam, so you should not spend more than fifteen minutes on average on any one proof.

1) 1. $\sim(\sim F \bullet G)$
2. $(F \vee H) \rightarrow \sim(I \bullet K)$
3. $G \equiv K \quad / \quad I \rightarrow \sim(G \vee K)$

2) 1. $\sim(V \vee W) \equiv [X \rightarrow (Y \bullet Z)]$
2. $\sim W \rightarrow \sim Y$
3. $Z \quad / \quad \sim Y$

3) 1. $S \rightarrow (R \bullet T)$
2. $\sim U \rightarrow P$
3. $(P \rightarrow Q) \bullet \sim M$
4. $P \rightarrow S$
5. $(R \bullet Q) \rightarrow \sim U \quad / \quad P \equiv (R \bullet Q)$

4) 1. $(O \equiv \sim H) \rightarrow \sim X$
2. $(\sim O \bullet N) \vee (H \bullet F)$
3. $(N \vee F) \rightarrow X \quad / \quad H \rightarrow O$